

CLAIMS

1. A cleaning device incorporates drive means and cleaning means, wherein the drive means are operable to drive the cleaning means across a surface to be cleaned, and wherein the drive means are operable to adopt first and second driving modes, the first driving mode being a travelling mode and the second driving mode being a turning mode, wherein locking means of the drive means allow selection between the first and second driving modes.
2. A cleaning device as claimed in claim 1, in which the drive means includes a rotatably mounted carriage incorporating at least one drive wheel.
3. A cleaning device as claimed in claim 2, in which the carriage is mounted to rotate about an axis substantially perpendicular to a rotational axis of the at least one drive wheel.
4. A cleaning device, as claimed in either claim 2 or claim 3, in which the carriage is prevented from rotating in the first driving mode.
- 25 5. A cleaning device as claimed in any one of claims 2 to 4, in which the carriage is free to rotate in the second driving mode.
- 30 6. A cleaning device as claimed in any preceding claim, in which the locking means are operable to be actuated by the cleaning device making contact with an obstacle.

7. A cleaning device as claimed in any preceding claim, in which the locking means are actuatable by an activation element located on a periphery of the cleaning device.

5 8. A cleaning device as claimed in claim 7, in which the activation element is electrically linked to the locking means.

9. A cleaning device as claimed in any preceding claim,
10 in which the locking means are detent means.

10. A cleaning device as claimed in claim 9, in which the detent means comprise an interengaging projection/recess pair of the carriage and a body of the cleaning device.

15 11. A cleaning device as claimed in any preceding claim, in which the locking means are biased to cause engagement of the first driving mode.

20 12. A cleaning device as claimed in claim 11, in which the bias is arranged to be overridden by the cleaning device making contact with an obstacle.

13. A method of driving a cleaning device comprises
25 adopting one of first and second driving modes of drive means of the cleaning device, wherein the first driving mode is a travelling mode and the second driving mode is a turning mode, and wherein the first and second driving modes are selected by actuation of locking means of the
30 drive means.

14. A method as claimed in claim 13, in which the locking means are actuated by the cleaning device making contact with an obstacle.

5 15. A method as claimed in claim 13 or claim 14, in which actuation of the locking means results in the second driving mode being adopted.

10 16. A method as claimed in any one of claims 13 to 15, in which, in the absence of actuation of the locking means, the first driving mode is selected.

15 17. A method as claimed in any one of claims 13 to 16, in which the locking means are biased to lock a carriage of the drive means in position in the first driving mode.

20 18. A method as claimed in any one of claims 13 to 17, in which selection of the second driving mode allows a carriage of the drive means to turn about a generally vertical axis.

25 19. A method of cleaning a surface comprises driving a cleaning device across the surface with drive means, to thereby cause cleaning means of the cleaning device to pass over the surface to allow cleaning thereof, wherein the drive means drive the cleaning device in a substantially straight path in a first driving mode until an obstruction is encountered, whereupon a second driving mode is engaged that causes the drive means to turn or 30 reverse from the obstacle.

20. Cleaning means for a cleaning device as claimed in any of claims 1 to 12.

21. Drive means for a cleaning device as claimed in any one of claims 1 to 12.

5 22. A cleaning device incorporates drive means for driving the cleaning device across a surface to be cleaned and cleaning means, wherein a front face of the cleaning device is substantially straight and a rear face of the cleaning device is substantially curved.